AMENDMENT UNDER 37 C.F.R. § 1.111

U.S. Appln. No.: 10/542,576

Attorney Docket No.: Q89211

**REMARKS** 

Status of the Application

Claims 1-20 are pending in the application and have been examined. With this

Amendment, Applicant amends claims 1, 11, 14 and 19, and cancels claims 13 and 15.

Applicant also adds new claim 21. After entry of this Amendment, claims 1-12, 14 and 16-21

will be pending in the application.

Objections to the Claims

Claim 19 has been objected to because the Examiner alleges that the term "same

transistors" is unclear. Applicant has amended claim 19 to recite "said active device carrying out

voltage-current conversion and an active device comprising said negative resistance device are

comprised of the same type of transistors having electrical conductivities different from each

other."

Applicant respectfully requests that this objection be withdrawn.

**Claim Rejections** 

Claims 1-10, 12, 13, 15, 16 and 18 --- 35 U.S.C. § 103(a)

Claims 1-10, 12, 13, 15, 16 and 18 have been rejected under 35 U.S.C. § 103(a) as

allegedly being unpatentable over U.S. Patent No. 5,079,443 to Wada et al. ("Wada"). Applicant

has canceled claims 13 and 15 without prejudice or disclaimer thereby rendering their rejections

moot. Applicant traverses the rejection of the remaining claims.

Addressing claim 1, Wada does not disclose or suggest at least wherein said voltage-

controller controls a voltage of said connection node and compensates for voltage fluctuation

caused at said connection node by variance of a resistance of said negative resistance device, as

10

Attorney Docket No.: Q89211

recited in the claim. Wada is directed to a voltage comparator circuit having hysteresis characteristics (Abstract). However, Wada merely discloses a circuit for supplying a fixed bias voltage to maintain the circuit characteristics even when a resistance of a negative resistance device is changed (see Fig. 6, Q35/R35 and Q36/R36). On the other hand, in Applicant's claimed circuit, the bias voltage is compensated for voltage fluctuation caused by variance of the resistance of the negative resistance device.

In view of the above, Applicant respectfully submits that claim 1 is not obvious over Wada and is therefore patentable. Claims 2-10, 12, 16 and 18 are patentable at least by virtue of their dependence from claim 1.

## Claims 14 and 17 --- 35 U.S.C. § 103(a)

Claims 14 and 17 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Wada. Applicant traverses this rejection.

Claims 14 and 17 depend from claim 1 and are therefore patentable over Wada at least by virtue of their dependence.

## Claim 19 --- 35 U.S.C. § 103(a)

Claim 19 has been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Wada. Applicant traverses this rejection.

Claim 19 depends from claim 1 and is therefore patentable over Wada at least by virtue of its dependence.

## Claim 20 --- 35 U.S.C. § 103(a)

Claim 20 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Wada. Applicant traverses this rejection.

Attorney Docket No.: Q89211

AMENDMENT UNDER 37 C.F.R. § 1.111

U.S. Appln. No.: 10/542,576

Claim 20 contains features similar to the features recited in claim 1 and is therefore patentable over Wada for reasons similar to the reasons set forth above in the arguments for claim 1.

Allowable Subject Matter

Applicant thanks the Examiner for the indication that claim 11 contains allowable subject matter and would be allowable if rewritten in independent form. Applicant has rewritten claim 11 as suggested by the Examiner and respectfully submits that rewritten claim 11 is patentable over the prior art.

New claims

Applicant has added new claim 21. New claim 21 contains features recited in claim 8, 9, 10 and 11. Applicant submits that no matter has been added. Further, Applicant respectfully submits that new claim 21 is patentable at least for reasons similar to the reasons that claim 11 is patentable.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

12

AMENDMENT UNDER 37 C.F.R. § 1.111 Attorney Docket No.: Q89211

U.S. Appln. No.: 10/542,576

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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